



Photoelectric sensors W2 Slim, Through-beam photoelectric sensor

WS/WE2S-F213



Model Name > [WS/WE2S-F213](#)
Part No. > [1023650](#)



Illustration may differ

At a glance

- Durable, overmolded housing with metal sleeves for 3 mm fixing bolts
- Background suppression proximity sensor with laser-like light spot
- PinPoint LED in all models provides small, bright, uniform light spot
- Fast response time of 0.6 ms

Your benefits

- PinPoint LED generates a sharply defined, highly visible light spot for quick and easy alignment
- Compact design saves space while providing long sensing ranges
- High immunity to crosstalk with another device enables the installation of several sensors in a single area



Features

Sensor/detection principle:	Through-beam photoelectric sensor
Dimensions (W x H x D):	7.6 mm x 25.1 mm x 12.5 mm
Housing design (light emission):	Rectangular, Slim
Sensing range max.:	0 m ... 1.2 m
Type of light:	Visible red light
Light source:	PinPoint LED ¹⁾
Wave length:	660 nm
Focus adjustable:	-
Light spot size (distance):	Ø 10 mm (100 mm)

¹⁾ Average service life 75,000 h at T_A = +25 °C

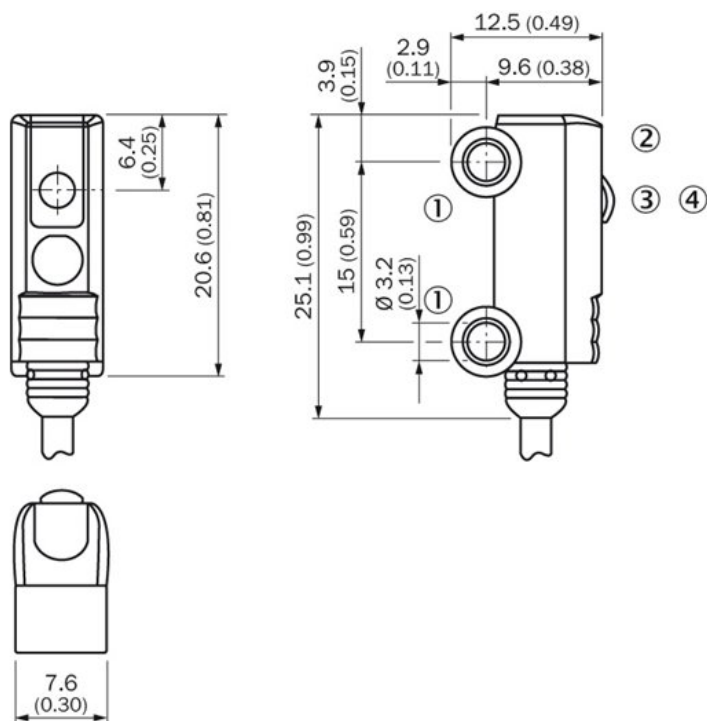
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	≤ 5 Vpp ²⁾
Output type:	PNP
Switching mode:	Dark-switching
Output current I _{max} :	≤ 50 mA
Response time:	< 2.4 ms ³⁾
Switching frequency:	200 Hz ⁴⁾
Connection type:	Cable with connector M8, 3-pin, 200 mm ⁵⁾
Cable material:	PVC
Cable diameter:	Ø 2.4 mm

Circuit protection:::	A, C, D ^{6) 7) 8)}
Weight:	40 g
Polarisation filter:	-
Reverse polarity protection:	✓
Short-circuit protection:	✓
Housing material:	ABS, Plastic
Optics material:	PMMA
Enclosure rating:	IP 67 IP 69K
Ambient operating temperature:	-20 °C ... 50 °C
Ambient storage temperature:	-40 °C ... 75 °C
Part number of individual components:	Receiver, WE2S-F213, 2027050, Sender, WS2S-D213, 2027047

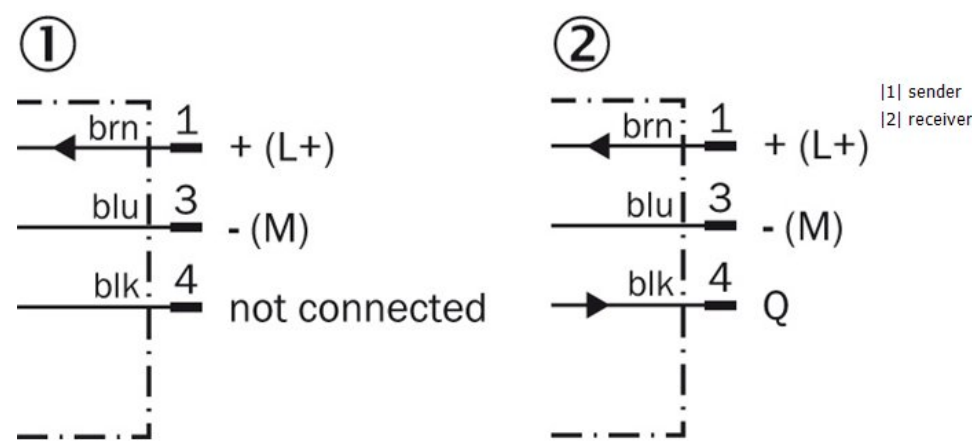
1) Limit values 2) May not exceed or fall short of V_S tolerances 3) Signal transit time with resistive load 4) With light/dark ratio 1:1 5) Do not bend below 0 °C 6) A = V
S connections reverse-polarity protected 7) C = interference suppression 8) D = outputs overcurrent and short-circuit protected

Dimensional drawing



- |1| Mounting hole, $\varnothing$ approx. 3.1 mm
- |2| Receive indicator
- |3| Optical axis, receiver
- |4| Optical axis, sender

Connection diagram



②

brn

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3

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(M)

blk

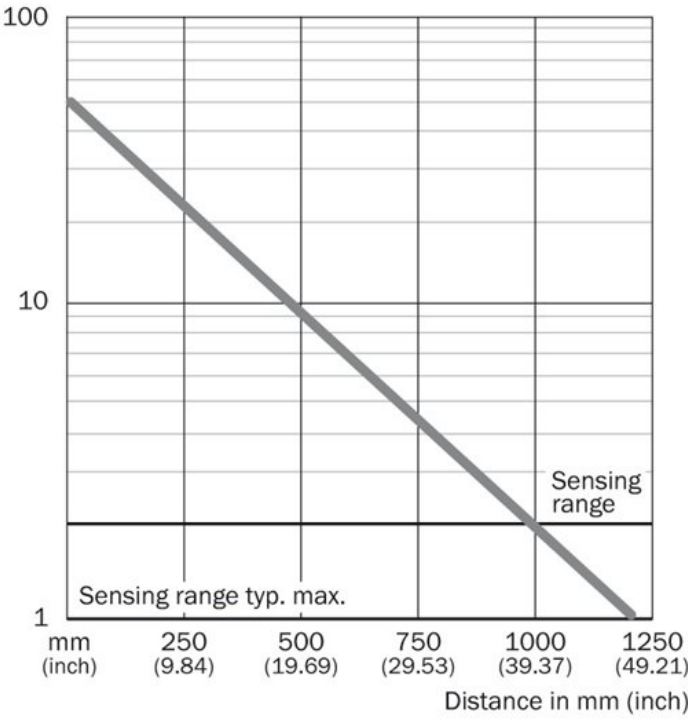
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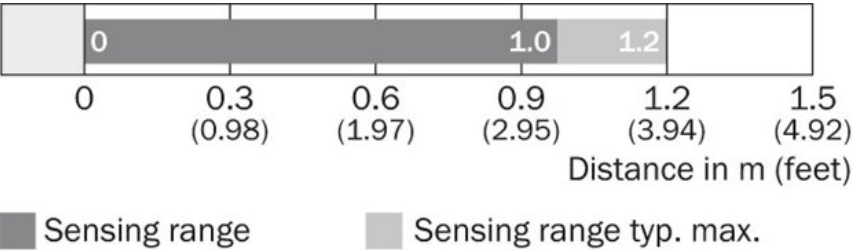
|1| sender

|2| receiver

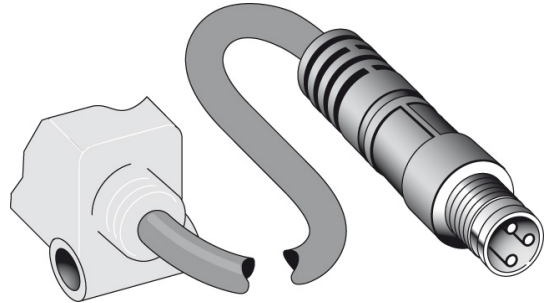
Characteristic curve



Sensing range diagram



Connection type



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